**Stats Big Understandings and Skills:**

**Equations show quantitative relationships and are useful.**

1. In order to solve a problem or answer a question, collect data and select the best way(s) to represent that data for the situation. Defend your choices. Keywords: Mean, median, mode, range, outliers, standard deviation, graph.

**Math helps to organize, visualize, and reveal relationships.**

1. Utilize technology to collect, organize, graph, and analyze data (Excel, CBLs and probes, graphing calculators)
2. Collect data from a sample population in order to draw inferences or to test a hypothesis. Keywords: Parameter, confidence interval, hypothesis testing, null hypothesis.

**All matter, energy, space, and time are measureable and quantifiable.**

1. Analyze a variety of situations where statistics are used and determine if the data is misleading. Defend your findings.

**Math searches for patterns that help predict the world around us.**

1. Research an event involving odds. Evaluate the methods for determining the odds of the event and discuss the usefulness of this information to someone.
2. Using real-world data, determine patterns and draw conclusions from charts, tables, and graphs.